

# Novel Model for Inpatient HCV Screening and Linkage to Care for Baby Boomers

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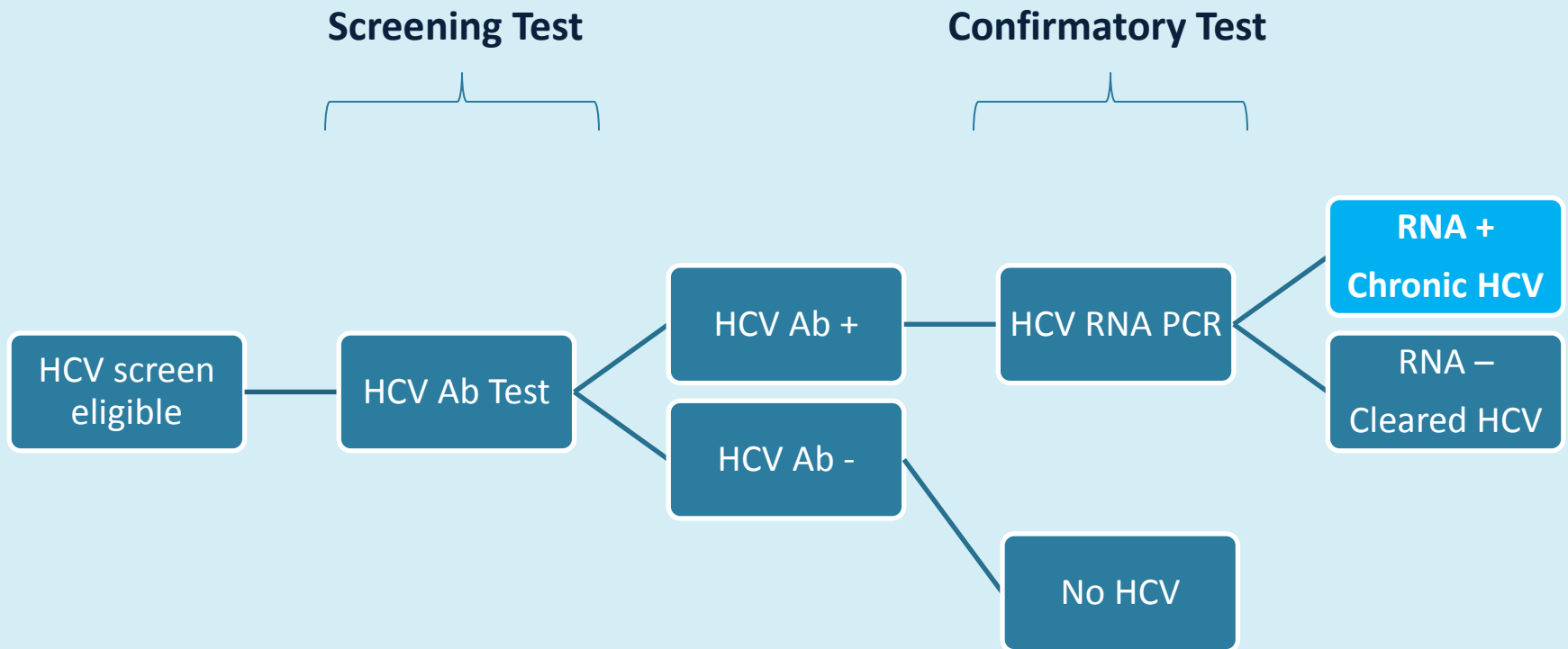
# Background

- The Centers for Disease Control and Prevention and the US Preventive Services Task Force now recommend one-time testing all baby boomers for HCV infection.
- In the US, an estimated 1.5 million of the 79 million baby boomers have undiagnosed chronic HCV infection.
- CDC estimates that implementation of baby boomer screening could:
  - Diagnose >800,000 persons with chronic HCV infection
  - Avert 121,000 deaths through treatment with anti-viral therapy and other lifestyle changes.
- Newer, more effective, less toxic treatment

# Objective

- To implement an HCV screening program for baby boomers admitted to a safety-net hospital in South Texas with 5 key features:
  - 1 Electronic medical record algorithm to identify eligible baby boomers for HCV testing;
  - 2 Automatic entry of HCV testing orders;
  - 3 Patient education about HCV screening program;
  - 4 Counseling for HCV antibody positive patients; and
  - 5 Patient navigator to facilitate linkage to care.

# Hepatitis C Screening Algorithm



# Goals within First Year of Project

- Test eligible baby boomers for HCV antibody
  - Goal: > 2,000
- Provide results to patients tested for HCV antibody
  - Goal: >85%
- Confirm positive HCV antibody (est. n>200) with HCV RNA
  - Goal: >85%
- Counsel patients with HCV antibody positive result about HCV infection
  - Goal: >85%
- Counsel and provide linkage to care to patients HCV RNA positive result (est. n=80-120)
  - Goal: >85%

# Screening for Eligible Baby Boomers

- Integrated software into electronic medical record to screen all admitted persons with birth year 1945-65 for
  - Prior record of HCV diagnosis ICD-9-CM code in any field or
  - Prior record of any HCV test within the system in past 7 years
- Validation study examined performance of screen in accurately identifying eligible persons with no prior HCV test or diagnosis

# Automatic HCV Screening Test

- In collaboration with the microbiology laboratory developed a new HCV screening protocol
  - HCV Antibody with reflex HCV RNA assay
  - With specialized phlebotomy allows for single sampling
- Developed program to add order for HCV screening test to most admission order sets
  - Over 50 different order sets
  - Excluded psychiatry and patients with a diagnosis of metastatic cancer
- Opt out consent with educational materials provided
  - <5% of patients have opted out

# Patient Education: Posters & Flyers



**MILLIONS OF AMERICANS HAVE HEPATITIS C.  
MOST DON'T KNOW IT.**

If you were born between 1945 and 1965, we will include the hepatitis C test with your other lab work. If you have questions or concerns, please talk with your nurse.

**Millones de Americanos tienen hepatitis C. La mayoría no lo saben.**  
Si usted nació entre los años 1945 y 1965, incluiremos la prueba de detección de hepatitis C con el resto de sus análisis de laboratorio. Por favor dirijase a su enfermero(a) si tiene preguntas al respecto.

  **EARLY DETECTION CAN SAVE LIVES.  
DETECCIÓN TEMPRANA PUEDE SALVAR VIDAS.**  
[www.cdc.gov/KnowMoreHepatitis](http://www.cdc.gov/KnowMoreHepatitis)

 **University Health System**  **UT MEDICINE**  **CDC** U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention



# Mobile App HCV Counseling Program

- Developed a tablet App-based HCV counseling program in English and Spanish addressing:
  - HCV epidemiology, transmission prevention, risks that can accelerate chronic HCV, and management/ treatment strategies
- Bilingual inpatient counselor
  - provides mobile app for all HCV antibody+ patients to review and answers questions
  - reviews treatment options and any support needs

## What is Hepatitis?



Your liver is an important organ located in the upper right part of your abdomen.

Your liver helps your body use the food you eat.

It filters and helps your blood clot.

It also fights infections.

[Previous Page](#)[Next Page](#)[Stomach](#)[Bones](#)[Liver](#)[Eyes](#)

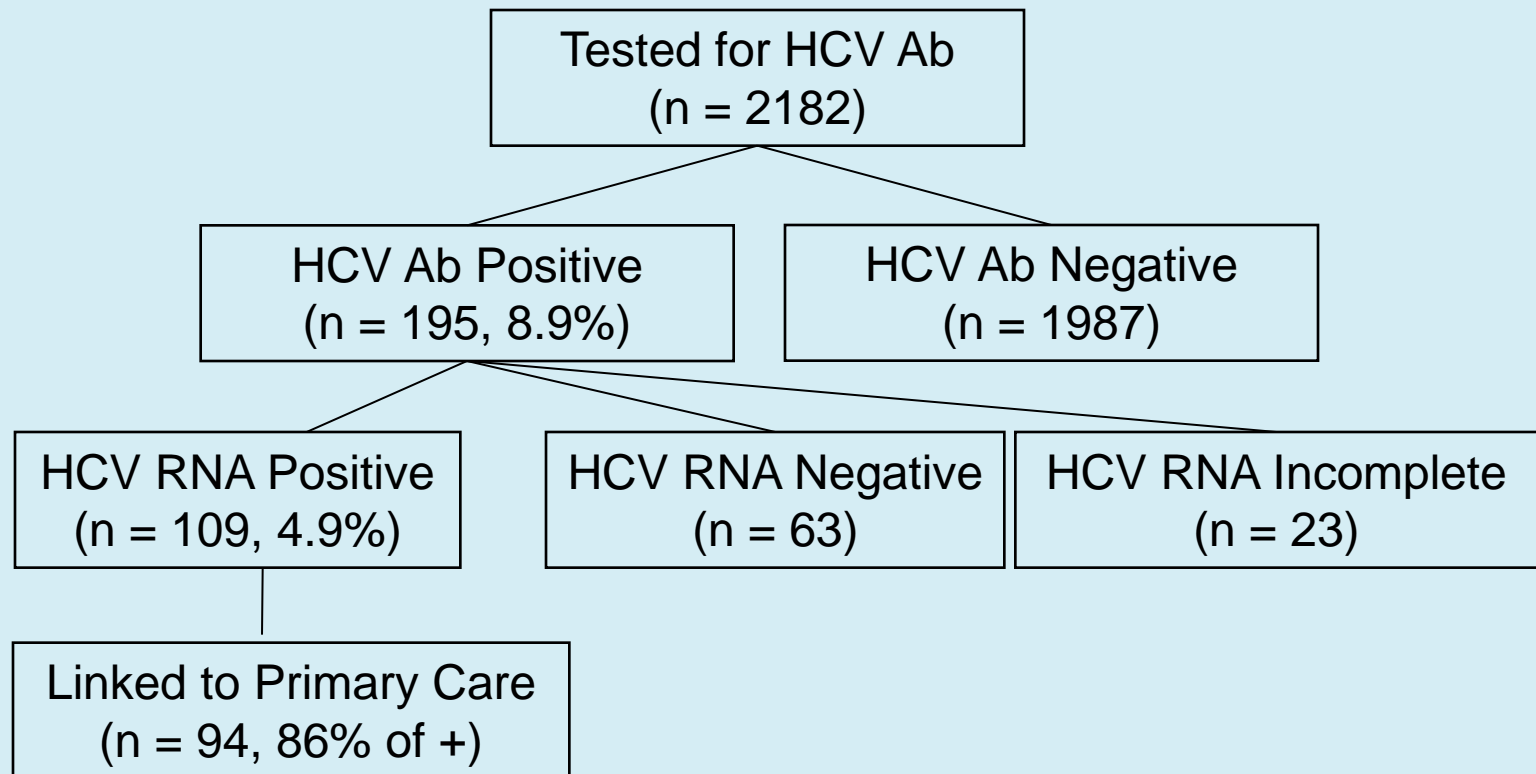
hurt?

[Previous Page](#)

# Patient Navigation

- Bilingual navigator contacts persons who are newly diagnosed with chronic HCV infection
- Obtains consent to send records to current primary care provider
- Offers support to patients without insurance to obtain coverage and then find primary care provider
- Sends list of recommended tests and preventive care (eg. immunizations) to providers
- Provides assistance with obtaining referral to HCV specialty care
- Offers appointments reminders

# Test Results (12/1/13 – 9/15/13)



# Characteristics of All HCV Antibody tested Patients vs HCV RNA Positive Patients

Characteristics	Chronic HCV (HCV RNA +)	All others (No HCV RNA +)	p Value
Birth year (median)	1959	1956	-
Gender			-
Women	0.229	0.445	<0.0001
Men	0.771	0.555	-
Hispanic Ethnicity	0.514	0.598	0.1028
Race			
Non-White	0.095	0.397	<0.0001
White	0.905	0.603	-
Uninsured	0.505	0.623	0.01

# Major Challenges

- In hospital testing
  - Moved to opt out strategy when nurse consent process proved too cumbersome
  - Excluding patients unlikely to benefit from screening because of a poor prognosis
  - Still need to order tests every morning for approximately 30% of admissions
- Laboratory confirmation
  - Relatively high proportion of HCV antibody positive, HCV RNA negative results
- Linkage to care
  - No insurance and no primary care providers
  - Substance abuse – especially alcohol
  - Homelessness

# Conclusions

- One time HCV screening of baby boomers admitted to a safety net hospital in South Texas has tested over 2000 patients
- Acceptance of HCV screening has been high
- 109 (5%) have been diagnosed as chronically HCV-infected
  - Most have been grateful to know their HCV status and are following up in primary care and HCV specialty care
- Second year of study funded to continue to refine this program

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